CLEAN VERSION OF AMENDED CLAIMS

Please cancel claims 15, 17, 25, and 31.

4. (Twice amended) A method for determining platelet functionality of a blood sample using a plunger sensor apparatus comprising at least one test cell and a plunger assembly within said test cell, the method comprising:

(a) dispensing an aliquot of said sample into said test cell;

(b) adding a selected amount of a platelet activating reagent to said aliquot sample to form a reaction mixture;

(c) adding a sufficient amount of a clotting reagent to said reaction mixture to promote clotting of said aliquot sample;

(d) performing a clotting test on said aliquot sample by alternately lifting the plunger assembly and allowing the plunger assembly to descend through the test mixture; and

(e) determining said platelet functionality of said sample based on the clotting times for said aliquot sample, wherein said clotting time is determined by measuring a change in viscosity of said aliquot sample.

8. (Twice Amended) A method for determining clotting characteristics of a blood sample using a plunger sensor apparatus comprising at least one test cell and a plunger assembly within said test cell, said method comprising:

(a) dispensing an aliquot of said sample into said test cell;

(b) adding a selected amount of a platelet activating reagent to said aliquot sample to form a reaction mixture;

(c) adding a sufficient amount of a clotting reagent to said reaction mixture to promote clotting of said sample;

(d) performing a clotting test on said aliquot sample by alternately lifting the plunger assembly and allowing the plunger assembly to descend through the test mixture; and

(e) determining clotting characteristics of said sample based on the clotting times for said aliquot sample.

13. (Amended) The method of claim 4, wherein the amount of said platelet activating agent in said aliquot sample is between about 0 and about 2.76 micrograms.

14. (Amended) The method of claim 4, wherein the concentration of said platelet activating reagent in said aliquot sample is between about 0 and about 150 nM.

20. (Amended) The method of claim 26, wherein the amount of said platelet activating agent in each said aliquot sample is between about 0 and about 2.76 micrograms.

21. (Amended) The method of claim 26, wherein the concentration of said platelet activating reagent in each said aliquot sample is between about 0 and about 150 nM.

22. (Amended) The method of claim 26, wherein at least one of said aliquot samples contains no platelet activating reagent, and wherein each remaining aliquot sample comprises different amounts of said platelet activating reagent.

24. (Amended) The method of claim 8, wherein said clotting time is determined by measuring a change in viscosity of said aliquot sample.

26. (Amended) A method for performing an activated clotting time test on a sample of blood using a plunger assembly apparatus comprising a multicell test cartridge, said cartridge comprising at least a first, a second and a third test cell and a plunger assembly within each of said test cells, each of said cells comprising a sufficient amount of a contact activator to achieve clotting, wherein said first cell further comprises a first amount of a platelet activating reagent and wherein said second cell comprises a second amount of said platelet activating reagent, said first and second amounts being different, said method comprising:

(a) dividing said sample into first, second and third partial samples;

(b) dispensing the first partial sample into the first test cell to form a first test mixture;

(c) performing a first activated clotting time test on the first test mixture by reciprocating said plunger assembly within said first cell to obtain a first clotting time;

(d) repeating the aforementioned steps of dispensing and performing an activated clotting time test on each of said second and third partial samples to obtain a second and third clotting time; and

(e) comparing the clotting time of said first, second, and third partial samples to determine the activated clotting time of the sample of blood based on the clotting time times of said first, second and third partial samples.